

**County of Loudoun**  
**Department of Planning**  
**MEMORANDUM**

**# 3**

Supplemental  
Information

**DATE:** June 3, 2010

**TO:** Loudoun County Board of Supervisors

**FROM:** Rodion Iwanczuk, AICP, Senior Planner  
Community Information and Outreach  
Julie Pastor, AICP, Director

**SUBJECT: JUNE 7, 2010 BOARD OF SUPERVISORS PUBLIC HEARING,  
SPEX 2010-0005, HAMILTON WELL 14, STONE EDEN PROPERTY**

The above-referenced land development case contains as a Condition of Approval requiring adherence to a Pumping, Monitoring and Mitigation Plan (PMMP) that was approved for Well 14 in 2007. The Town of Hamilton, the applicant, has prepared an Addendum to the PMMP detailing additional steps that will be taken to better protect offsite private wells.

In recommending approval of the application, the Planning Commission requested that the Town complete the Addendum and post it for review one week prior to the Board public hearing. The Addendum was posted to the Town's website on Friday, May 28, 2010. The Conditions of Approval recommended by the Planning Commission reference the Addendum as a part of the PMMP (see Condition 2, *italicized text*).

**Staff Recommendation**

Staff cannot recommend including the Addendum in its current form in the Conditions of Approval. The Board could direct staff to continue discussion with the Town to revise the Addendum regarding County assistance with the costs of monitoring outside the special exception process. This would allow the Town to make improvements to the well and rely on the existing PMMP to address potential issues until the Town and County reach agreement on the Addendum.

**Issues**

*Well Monitoring.*

The Addendum provides that the County reimburse the Town of Hamilton for all monitoring costs incurred as a result of extending the duration of the PMMP to include a period of moderate drought and one year thereafter. The chance of a moderate drought occurring in any one year is one-in-five. As such, additional monitoring may be

expected to continue for six years (such a period may be longer or shorter, depending upon when the next moderate or more severe drought occurs).

By accepting the Addendum as proposed, and including as part of the Conditions of Approval that the Addendum becomes part of the PMMP, the Board effectively agrees to reimburse the Town of Hamilton for its additional monitoring expenses of offsite private wells for an expected six years.

*Adverse Impact.*

Adverse impact is defined in the Addendum as "solely caused" by the use of Well 14. Sole cause would mean that no other well or other cause is a contributing factor. For instance, a rainfall amount that is less than normal (but not a drought) could be a contributing factor, and Well 14 would then not be the sole cause. As there are other private wells in the vicinity, the Town could maintain that Well 14 is not the sole cause, even though it may be the overwhelmingly primary cause. "Proximately" caused would be a more acceptable definition.

**Fiscal Impact**

According to Town of Hamilton officials, future monitoring costs are expected to be up to approximately \$85,000 annually. Monitoring for an expected six additional years would cost \$510,000 in current dollars.

**Alternatives**

Staff cannot recommend referencing the Addendum to the PMMP in its current form in the Conditions of Approval, so as not to obligate the County for future monitoring costs related to Well 14, and as to how adverse impacts to adjacent wells are defined.

The Board may accept the Conditions of Approval with the reference to the Addendum as proposed by the Town with monitoring cost reimbursement. Condition 2 does not prevent future change to the Addendum. This would allow the Board to forward the application and Conditions of Approval as proposed to the next Business Meeting for action.

The Board could instead revise the Addendum prior to acting on the special exception. This would keep reference to the Addendum in the Conditions of Approval, but also require returning it to the Town for its consent to the revision of the Addendum prior to action on the special exception. Proceeding in this manner could delay action on the special exception application until the Addendum is finalized.

**Draft Motions**

1. I move that the Board of Supervisors forward SPEX 2010-0005, Hamilton Well 14, Stone Eden Farm, to the July 7, 2010 Board Business Meeting for action.

OR

2. I move that the Board of Supervisors forward SPEX 2010-0005, Hamilton Well 14, Stone Eden Farm, to the Transportation/Land Use Committee for further discussion of outstanding issues.

OR

3. I move an alternate motion.

**Attachments:**

1. Pumping, Monitoring and Mitigation Plan Amendment – Well #14, Town of Hamilton (Addendum)
2. Conditions of Approval Dated May 20, 2010

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## **Pumping Monitoring and Mitigation Plan Amendment –Well #14 Town of Hamilton**

Analytical Services, Inc. and TRIAD Engineering, Inc. are pleased to present the following pumping, monitoring and mitigation plan (PMMP) Addendum for Well #14 that has been prepared on behalf of our client, the Town of Hamilton (the Town.) This amendment addresses concerns expressed from the Loudoun County (the County) Planning Commission regarding SPEX 2010-005.

### **Purpose of the PMMP**

The PMMP has been developed to both monitor water withdrawal from Well 14 and to monitor the impact that Well 14 may have on surrounding wells. Evaluating for impact will be done primarily by analyzing data collected from select wells that are in proximity to Well 14 (monitored wells). The goal of the plan is to identify groundwater monitoring trends that may suggest adverse impacts on surrounding wells and take enable remedial action before the productivity of a surrounding well is compromised to an unacceptable extent. In summary, the PMMP is designed to enable remedial action before there is an adverse impact on a surrounding well. Adverse impact is defined as an interruption in water service that is solely caused by the Town's use of Well 14. In the unlikely event that adverse impact occurs before remedial action is undertaken, the following proposed amendments to the PMMP are offered.

### **Point of contact**

The Town will coordinate with the County to establish a point of contact, likely within the Department of Building and Development, or in other departments as appropriate. The identified office will be where homeowners, residing within the County, report adverse impacts in the first instance. The contact number for the Town of Hamilton is 540-338-2811. After Business hours and weekends, the Town of Hamilton contact number is 540-454-7155, Director of Utilities. All contact information will be posted on the Town's website. Homeowners who suspect a problem will contact the County first and then, only then, the Town.

### **Timeframes**

When an adverse impact is reported to the designated County office, the first step will be to determine whether or not the adverse impact is solely caused by the use of Well 14. This determination will be made by the County and representatives of the Town based upon an analysis of the PMMP monitoring data and the nature and scope of the reported problem. Every effort will be made to initiate the data analysis within 24 hours of when the report is received. If the problem is determined to be solely caused by Well 14 pumping, appropriate remedial action will be undertaken. If the problem is ultimately determined to be unrelated to the use of Well 14, and the County and/or the Town incurs remediation costs, the homeowner shall reimburse the Town and/or the County. The

homeowner may be asked to execute a reimbursement/ indemnification agreement before any investigation on the subject property takes place or any remediation effort is undertaken.

**Posting of Data**

Information regarding the PMMP and Monitoring Reports will be posted on the Town's web site.

**Monitoring data for projected Town needs**

As a part of the monitoring plan, the Town will pump Well#14 at a rate that will provide for both the existing and anticipated future water requirements from Well #14. The Town has nine other wells that are also used to meet the Town's needs.

**Monitoring data from drought conditions**

The Town will monitor during drought conditions in accord with recommended SPEX 2010-0005 Condition 2 which provides that monitoring will extend one year beyond the next one year period October 1-September 30 that exhibits moderate drought conditions in Loudoun County. (Reference SPEX 2010-0005 conditions); provided, however, that the County reimburses the town for all monitoring costs incurred as a result of extending the duration of the PMMP to include a period of moderate drought and one year thereafter.

Respectfully Submitted,

Michael L. Maloy, CPG  
Analytical Services, Inc.

cc: William J. Mikalik, CPG

**Hamilton Well 14, Stone Eden Property, SPEX 2010-0005**  
**Board of Supervisors Public Hearing, June 7, 2010**

**CONDITIONS OF APPROVAL, May 20, 2010**

1. **Special Exception Plat.** The Special Exception use, structure or use for local governmental purposes (public well), shall be developed in substantial conformance with the revised Outlet Lot "A", Well Lot, Town of Hamilton Special Exception Plat prepared by Stantec Consulting Services, Inc., dated March, 2010 and revised through March 26, 2010, and the Revised 1993 Loudoun County Zoning Ordinance. Approval of this application for Tax Map /45//37//WELL/ (PIN # 454-20-8349) (the "Property") shall not relieve the applicant or the owners of the Property from the obligation to comply with and conform to any other Zoning Ordinance, Codified Ordinance, or applicable regulatory requirement.
2. **Pumping, Monitoring, and Mitigation Plan.** Use of the well on the Property ("Well 14") shall be in accordance with the provisions of the accepted Pumping, Monitoring and Mitigation Plan (PMMP) for Town of Hamilton Well 14, dated October 15, 2007, *including the addendum to be finalized by Board of Supervisors review*, and including but not limited to pumping, monitoring, and potential mitigation of impacts due to the use of Well 14. The Applicant shall continue monitoring of adjacent wells and providing quarterly reports to the Loudoun County Department of Building and Development as established in the PMMP. Such monitoring and reporting shall extend at least one year beyond the next one-year period October 1-September 30 that exhibits moderate drought conditions in Loudoun County as measured in the Palmer Drought Index, USGS Weekly Streamflow, and Standardized Precipitation Index following approval of SPEX 2010-0005. The Applicant shall also work with Loudoun County staff to develop and implement a reporting system to inform adjacent property owners of monitoring reports and investigate situations in which private wells may have been significantly impacted by Well 14.
3. **Noise Attenuation.** The Applicant shall install an earthen berm on the Property at least four (4) feet in height, between the generator and the northern property boundary. The berm will begin at approximately the eastern end of the existing control building and run approximately 70 feet in an easterly direction. The berm shall be completed within 60 days after issuance of the zoning permit for the generator. Until the berm has been completed, the generator shall not be operated for more than thirty (30) minutes per week, and any such operation shall be only between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday. After installation of the berm, the noise level of the generator will be tested to document that the noise level does not exceed 55 dBA, measured at the northern property line. Such measurement shall be continuous noise measured using a slow meter response of the sound level meter. Should additional noise mitigation be necessary, a board on board fence will be installed on the berm. The Applicant will work with the County Urban Forester to provide suitable landscaping of the berm. The plantings may include a mix of low maintenance shrubs and trees and will consist of a planting density similar to a Type 2 side/rear buffer. The Applicant shall provide documentation that noise created by operation of the generator is in compliance with the noise standards of Section 5-1507 of the Revised 1993 Zoning Ordinance.

4. **Generator Test.** Generator tests lasting for one half-hour shall only be scheduled each week between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday.
5. **Lighting.** All lighting on the Site shall comply with the requirements of Section 5-1504 of the Revised 1993 Zoning Ordinance regarding Light and Glare Standards. All lighting shall be full cutoff and fully shielded lighting fixtures such that the light will be directed downward and away from adjacent properties and the direct glare of the bulb shall not be visible beyond the property line of the parcel, and the lighting system shall be operated by motion sensor. The lighting will be designed in such a manner as to minimize the impacts on the nearby residential uses.